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FASSE PATENT ATTORNEYS, P.A.			SANDERSON, JOSEPH W	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/526,424	Applicant(s) PUSCHMANN ET AL.	
	Examiner Joseph W. Sanderson	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/01/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 20-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 20-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/01/05, 01/23/06</u> . | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet.</u> |

Continuation of Attachment(s) 6). Other: English translation of DE 2 113 406.

DETAILED ACTION

Priority

1. Foreign priority to patents DE 102 40 511.5 issued on 09/03/02 and DE 103 28 431.1 issued on 06/25/03 is acknowledged.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it is longer than 150 words and contains both claim language and implicit information (e.g.: "by means of an..." in line 3; "invention exists in that..." in line 5). Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities: Page 3, line 7, the word "is" in "the system is manages to operate..." should be removed.

Appropriate correction is required.

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4. The disclosure is objected to because of the following informalities: The specification refers to canceled claims by number, e.g. "set forth in the claims 2 to 19" on page 4, line 10.

Appropriate correction is required.

5. The disclosure is objected to because of the following informalities: For consistent use of terminology, the term "the lower flange 210" on page 13, line 2 should match the term "a flange 210" as already set forth on page 12, line 17.

Appropriate correction is required.

6. The disclosure is objected to because of the following informalities: On page 14, lines 11-12, the "valve flange 13" should be changed to "the valve flange 213".

Appropriate correction is required.

Claim Objections

7. Claim 1 is objected to because of the following informalities: In lines 5 and 6, "the side" should be "a side." Appropriate correction is required.

8. Claim 24 is objected to because of the following informalities: "The door (1)" lacks positive antecedent basis within the claim. Appropriate correction is required.

9. Claim 27 is objected to because of the following informalities: The word "a" should precede the phrase "connection pipe (6)." Appropriate correction is required.

10. Claim 28 is objected to because of the following informalities: "The passenger cabin (P)" and "the outside environment (A)" lacks positive antecedent basis. In claim 1, reference signs (P) and (A) have been used to designate "the side with higher pressure" and "the side with lower pressure," respectively. Appropriate correction is required.

11. Claim 30 is objected to because of the following informalities: "The door structure (110)" lacks positive antecedent basis within the claim. Appropriate correction is required.

12. Claim 32 is objected to because of the following informalities: The word "an" should precede the phrase "in-flow opening (212)." Appropriate correction is required.\

13. Claim 34 is objected to because of the following informalities: "The door opening mechanism (100)" lacks positive antecedent basis within the claim. Appropriate correction is required.

14. Claim 34 is objected to because of the following informalities: Reference sign "(1)" designates "the aircraft door," but in claim 1 designates "a pressure-loaded device." Appropriate correction is required.

Claim Rejections - 35 USC § 112

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claims 2, 3, 20, 22, 23, 26 and 28-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2 and 3, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 2, it is unclear to the examiner whether the structure as defined includes both a valve and a signal producing device each producing an acoustic signal, or if only one of the devices produces a signal.

Regarding claim 3, it is unclear to the examiner whether the valve, as stated in claim 1 and incorporated by reference, or a means in connection with the valve is producing an acoustic signal.

Regarding claim 20, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 22 recites the limitation "the control means" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 23 recites the limitation "the door operating lever" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 26, the phrase "and/or" renders the claim indefinite because it is unclear as to the exact structure that needs to be found.

Claim 28 recites the limitation "the hand lever box" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 31 recites the limitation "the spring-loaded slide bolt" in line 6. There is insufficient antecedent basis for this limitation in the claim, as only a slide bolt is mentioned in line 4.

Regarding claim 31, it is unclear to the examiner whether the slide bolt or the connected seal is "on a valve flange" via a connection, or in another possible rendering,

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if the seal is placed on the valve flange by the bolt during closure. The examiner will read the claim as being closed by a slide bolt pressing a seal onto a valve flange.

Claim 32 recites the limitation "the valve housing" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 32 and 33 recite the limitation "the seal rubber" in line 3 and line 2, respectively. There is insufficient antecedent basis for this limitation in the claim, since claim 31 only recites a seal.

Regarding claims 32 and 33, it is unclear to the examiner if the structure referenced by (217) refers to a generic connected seal as introduced in claim 31, or a specific device, a seal rubber, as stated in claims 32 and 33.

Claim 34 recites the limitation "the locking shaft" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 35 recites the limitation "the dead center point" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 1-3, 20-22, 24, 26, 27, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 2 113 406 (the English translation provided is used).

Regarding independent claim 1:

DE '406 teaches an apparatus for warning of differential pressure during the opening of a pressure-loaded closure device (Fig. 1, Item 1) of an opening in a pressurized enclosure by means of an opening mechanism (Fig. 1, Item 8);

An air guide passage (Fig. 2, Item 2a) is provided from the side with higher pressure (Fig. 2, area below door 1) to the side with lower pressure (Fig. 2, area above door 1);

The passage is closeable by a valve (Fig. 2, Item 12), whereby the valve is controllable with a control lever (Fig. 1, Item 8 or Fig. 2, Item 11) placed in operative connection with the opening mechanism, and produces an acoustic signal upon the opening of the valve and an existing differential pressure ([XIII]).

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Regarding claims 2 and 3:

The discussion above regarding claim 1 is relied upon.

DE '406 teaches the valve comprising a means for producing an acoustic signal via air rushing through the valve itself and the drilled hole ([XIII]).

Regarding claim 20:

The discussion above regarding claim 1 is relied upon.

DE '406 teaches the control lever embodied as a door-operating lever (Fig. 1, Item 8), which is placed in operative connection with the valve via a mechanical connection (Fig. 1, Item 10).

Regarding claim 21:

The discussion above regarding claim 1 is relied upon.

DE '406 teaches a first condition in the operation of the control lever in which the valve opens and, for an existing pressure differential, an acoustic signal is provided ([II], lines 9-13; [XIII]).

Regarding claim 22:

The discussion above regarding claim 21 is relied upon.

DE '406 teaches a second condition in the operation of the control means in which, if no differential pressure exists, the opening process is able to further proceed ([II], lines 11-13).

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Regarding claim 24:

The discussion above regarding claim 1 is relied upon.

DE '406 teaches the air guide passage is provided in the door (Fig. 2).

Regarding claim 26:

The discussion above regarding claim 2 is relied upon.

DE '406 teaches the air guide passage capable of guiding the airflow in a targeted manner in the direction of an operator's hand in the presence of a differential pressure (Fig. 1).

Regarding claim 27:

The discussion above regarding claim 1 is relied upon.

DE '406 teaches the air guide passage as "a type of channel" (i.e. a drilled hole, [XIII], line 3).

Regarding claim 34:

The discussion above regarding claim 1 is relied upon.

DE '406 teaches the control lever (Item 8) is arranged on a locking shaft (Fig. 3, Item 7), the free end of the control lever (the circular hand grip portion of item 8) rotates in a circular arc path, rotating the locking shaft (Fig. 3, the structure shown indicates a handwheel shaft fixedly attached to the locking shaft at a central point so that if one is

rotated, the other is as well), and whereby an opening of the valve takes place before the door opening mechanism completely releases the door ([II], lines 11-13).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Regarding claim 25:

The discussion above regarding claim 1 is relied upon.

DE '406 discloses the claimed invention in a door, but does not render the air guide passage being provided in a door frame surrounding the door.

In the absence of any stated problems solved by or any stated advantage obtained by having a certain feature as claimed in the instant invention, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have placed the air guide passage in the door frame, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japiske*, 86 USPQ 70. In the instant claim, placing the device in the door frame would guarantee placement and use in case a door without the device replaced the current door due to failures.

21. Claims 28-30 rejected under 35 U.S.C. 103(a) as being unpatentable over DE '406 in view of Fleming et al. (U.S. 5 337 977).

Regarding claim 28:

The discussion above regarding claim 1 is relied upon.

DE '406 teaches an air guide passage provided from the high-pressure side to the low-pressure side via a through-flow opening (Fig. 2, top of item 2a) in a door for a pressurized enclosure in the area of the hand lever box (Fig. 1, right-facing arrow shaped portion stretching from the door hinge on the left to the bore hole on the right and holding the handwheel). DE '406 does not disclose a through-flow opening in an aircraft door.

Fleming teaches a pressure vent assembly having a through-flow opening (Fig. 7, Item 42) in an aircraft door (Fig. 1, Item 20) to prevent injury to those standing outside of the aircraft door when the door is opened (Column 2, Lines 1-7).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have placed the device DE '406 with the through-flow opening on an aircraft door, as taught by Fleming, to prevent injury to those standing outside the aircraft door when the door is opened.

Regarding claim 29:

The discussion above regarding claim 28 is relied upon.

DE '406 teaches the air guide passage proceeding via the valve and a connected air guide device (Fig. 2, Item 2) to the through-flow opening.

Regarding claim 30:

The discussion above regarding claim 28 is relied upon.

DE '406 teaches the air guide device positioned by means of a flange (Fig. 2, widened portion in the middle of item 2) on the door structure in the area of the hand lever box.

22. Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE '406 in view of Winter (U.S. 6 161 539) and Kijima (U.S. 4 646 582).

Regarding claim 31:

The discussion above regarding claim 1 is relied upon.

DE '406 discloses a differential pressure warning device with an air guide passage and either a ball valve or a stopcock valve operated by an adjusting lever (Fig. 2, Item 11) that clears an out-flow opening in the valve flange (Fig. 2, area sectioned area between main valve body and pivot pin) when opened. DE '406 does not specifically disclose the lever with a roller on its free end pressing a slide bolt with connected seal on a valve flange during closing.

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Winter teaches an air guide passage with a valve having a spring-loaded slide bolt (Fig. 2, Item 24) with connected seal (Fig. 2, Item 30) that is pressed onto a valve flange (Fig. 2, Item 16) during closure, and the bolt being released through rotation of a control lever (Fig. 2, Item 20).

Further, Kijima teaches a valve with a slide bolt closed by a roller (Fig. 4, Item 76) at the free end of a lever (Fig. 4, Items 16 and 70).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have substituted the valve and control lever of DE '406 with those as taught by Winter and Kijima as such modification is merely an alternative valve and actuator mechanism performing the same intended function, and since such modification would further guarantee that the valve would be opened upon actuation by the lever.

Regarding claim 32:

The discussion above regarding claim 31 is relied upon.

DE '406, as modified, renders an opening in the valve flange, an in-flow opening on the valve housing ('406; Fig. 2, dashed section on right of valve 12) and seal capable of producing a rushing/hissing acoustic signal.

Regarding claim 33:

The discussion above regarding claim 31 is relied upon.

DE '406, as modified, renders the seal in the direction of the out-flow opening of the valve ('539; Fig. 2, Item 12) with an existing pressure difference, and thereby closes the opening in addition to the pressure of the slide bolt.

23. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE '406 in view of Niklaus (U.S. 5 541 378).

The discussion above regarding claim 1 is relied upon.

DE '406 discloses a lever operating a valve (Fig. 2, Item 11). DE '406 does not disclose an over-travel of the lever past a dead-center point provided on the motion path of the free end of the lever.

Niklaus teaches an over-travel (Fig. 5, Item u) of a lever (Fig. 5, Item 76) past a dead-center point (Fig. 5, cross-hair center in item 26) provided on the motion path of the free end of the lever (depicted in Figs. 3-6).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified DE '406 to include the over-travel of the lever as taught by Niklaus to ensure closure of the valve in view of any mechanical tolerances that may have been breached during manufacture.

Allowable Subject Matter

24. Claim 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bamber (U.S. 2 596 116) teaches an airplane pressure differential stall indicator.

Dyche, Jr. et al. (U.S. 2 638 579) teaches a differential pressure stall warning apparatus.

Siems et al. (U.S. 2 748 855) teaches blow-out safe aircraft doors with pressure doors.

Rominger et al. (U.S. 2 960 923) teaches an aircraft cabin pressure equalization system.

Cerne (U.S. 4 042 193) teaches a dynamic pressure warning device in a door.

Barnes et al. (U.S. 4 473 201) teaches a cargo door with a vent door attached to the actuating mechanism.

Hamatani (U.S. 4 720 065) teaches an aircraft door opening mechanism.

Shepherd et al. (U.S. 5 069 401) teaches a compartment partition and pressure relief door.

Singh et al. (U.S. 5 118 053) teaches pressure equalization systems.

Noble et al. (U.S. 5 156 359) teaches an aircraft door handle assembly with two actuating levers and a distinct hand lever box.

Kallies et al. (U.S. 5 577 781) teaches a locking mechanism responsive to differential pressures.

Schwarz (U.S. 5 782 511) teaches a decompression lock.

Lingard et al. (U.S. 5 931 415) teaches a plug-type overwing emergency exit door assembly.

Royer et al. (U.S. 5 944 285) teaches a vent valve assembly with pressure relief.

Blum et al. (U.S. 6 685 139) teaches an emergency opening cylinder of a passenger door having a ventilation bore.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph W. Sanderson whose telephone number is 571-272-0474. The examiner can normally be reached on M-F 8:30 am - 4:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph W. Sanderson

JWS



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